IV B.Tech. I/II Semester Examination, July - 2016

**MOBILE COMPUTING**

Time: **3** hours (CSE) Max. Marks: **60**

## Instructions: 1. Answer ONE question from each unit

## 2. All Questions carry equal marks

**3. Assume missing data, if any**

**UNIT – I**

1. a) Discuss about Radio transmission frequencies. [6M]

b) Explain the Space division & Code division Multiplexing. [6M]

### (OR)

1. a) Explain different types of Multiplexing Techniques. [6M]

b) Describe various types of antennas. [6M]

**UNIT – II**

1. a) Explain Network Switching Sub system of GSM. [6M]

b) List and explain various numbers needed to locate MS in GSM. [6M]

**(OR)**

1. a) Explain how subscriber authentication is done GSM. [6M]

b) Describe the UMTS System architecture. [6M]

**UNIT – III**

1. a) Describe about system architecture of IEEE 802.11. [9M]

b) Specify the differences between infrastructure & ad hoc networks. [3M]

**(OR)**

1. a) Write short notes on Bluetooth, Piconet and Scatter net. [8M]

b) Describe physical layer frame format using FHSS. [4M]

**UNIT – IV**

1. a) Discuss about the tunnelling and encapsulation. [8M]

b) Explain differences between wired networks and ad hoc wireless networks. [4M]

**(OR)**

1. a) Explain about requirements and goals of Mobile IP. [6M]

b) Describe about the MAC protocols [6M]

**UNIT – V**

1. a) Explain about the Congestion Control Mechanism. [4M]

b) Describe about selective retransmission and transaction oriented TCP. [8M]

**(OR)**

1. a) Explain the wireless application environment. [6M]

b) Draw and explain the WAP architecture with a neat diagram. [6M]